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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,598	12/12/2003	Michael Heindtel	03910/0200611-US0	1641

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EXAMINER

PATEL, VINOD D

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,598	Applicant(s) HEINDTEL, MICHAEL	
	Examiner Vinod D. Patel	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12-12-03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED OFFICE ACTION

INTRODUCTION

1. This application/control number 10/734,598 has been examined. This is the first action on the merits of the claimed invention. The application has claims 1-14 pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Desolge (US5359179).

Desolge discloses a planar heating element (20) (Figure 2) comprising a planar carrier (26), a first (22) and at least one second heating conductor (24) for selective supply with current, the first and second heating conductors being wound in spiral windings around the carrier, the outer contour form of said carrier and/or the winding density and/or the course of the windings of said heating conductor adapted to produce a predetermined heating picture within the heating area respectively.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 3-6 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birtchet (US5417516) in view of Desloge (US5359179).

Birtchet discloses an electric heated screed assembly (10) for use with a paving machine (12) includes a screed (16) having at least one working component in the form of a smoothing plate (30) comprising: at least one electric heating element (36) secured in heat transferring condition in a heating area of said working component. Birtchet discloses (column 5, lines 44-47) other electric heating elements could be used in place of heating elements (36) of present invention.

Birtchet does not disclose a planar heating element comprising, a planar carrier, a heating coil forming a heating conductor wound in a spiral around said planar carrier, the peripheral contour of said carrier and/or the winding density or the course of the windings of said heating conductor adapted to produce a predetermined heating picture in the heating area of said working compound.

Desolge discloses (Fig.2, column 5, lines 38-62) a heater assembly (10) includes a channel-shaped upper sheath or cover member (12) generally made of a metallic material and further includes a tab member (16) associated with each respective opposite end portion thereof as well as an elongated slot or opening (18) positioned at an intermediate location there between, heating element (20) is a conventional bifiler winder construction which includes a pair of electrical resistance wires (22) and (24) helically wrapped or wound in parallel relationship around a sheet of insulator material (26). The bifiler wound construction is achieved by first winding the resistance wires (22) and (24) in parallel around the insulator

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strip (26) from one end to the other in accordance with known techniques. The heating element (20) is sandwiched between two strips or sheets of insulation material (32) and (34) which effectively insulate the heating element from the metallic heat conducting parts (12) and (36).

It would have been obvious to one of ordinary skill in the art to use planar heating assembly of Desloge for the electric heated screed assembly (10) (for use with a paving machine) of Birtchet to provide a more responsive and reliable heater (Column 4, line 58-60).

6. Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birtchet (US5417516) in view of Desloge (US5359179).

Birtchet discloses an electric heated screed assembly (10) for use with a paving machine (12) includes a screed (16) having at least one working component in the form of a smoothing plate (30) comprising: at least one electric heating element (36) secured in heat transferring condition in a heating area of said working component. Birtchet discloses (column 5, lines 44-47) other electric heating elements could be used in place of heating elements (36) of present invention.

Birtchet or Desloge does not disclose heating conductor has a bandwidth between 1.0 mm and 4.00 mm and band thickness between about 0.1mm and 0.4 mm and the planar heating element has a total thickness between 4.00mm and 10.0 mm and the carrier , around which the heating conductor is wound has substantially uniform thickness in the range between 1.00 mm and 3.00 mm and the planar heating length between 0.9 m to 1.2 m and width of between 50 mm to 100 mm and has a power consumption of between 500 watts and watts, preferably of about 600 watts.

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It is well established that the above listed variables are result-effective variables; that is, variables which achieve a recognized result before the determination of their optimum or workable ranges by routine experimentation. In re Antonie, 559 F.2d 618, 620, 195 USPQ 6,8 (CCPA 1977). General conditions of the claims are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by engineering or routine experimentation. It would have been obvious to one having ordinary skill in the art at the time the invention was to modify the result-effective variables in Desloge to the values and ranges as claimed by using routine engineering procedure to optimize the operation of the heating device.

It would have been obvious to one of ordinary skill in the art to use planar heating assembly of Desolge for the electric heated screed assembly (10) (for use with a paving machine) of Birtchet to provide a more responsive and reliable heater (Column 4, line 58-60).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod D. Patel whose telephone number is 703-308-5227. The examiner can normally be reached on 7.30 A.M. TO 4.00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP



Vinod Patel
Patent Examiner
Art Unit 3742



ROBIN O. EVANS
PRIMARY EXAMINER

6/15/04